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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,965	09/18/2003	John Tadich	MLP 7222	8329

321 7590 09/09/2004

SENNIGER POWERS LEAVITT AND ROEDEL  
ONE METROPOLITAN SQUARE  
16TH FLOOR  
ST LOUIS, MO 63102

EXAMINER

SAETHER, FLEMMING

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/665,965

Applicant(s)

TADICH, JOHN

Examiner

Flemming Saether

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### ***Drawings***

The drawings are objected to because the cross-section in Fig.2 is not consistent with the line of cross-section shown in Fig. 1. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 10 is rejected under 35 U.S.C. 102(b) as being anticipated by Holmes (US 1,294,268). Holmes discloses a self-tapping screw having a drive head (1) with a flange (2) at one end and a tip at an opposite end and a shank therebetween. The shank includes outwardly projecting threads (4) of a constant maximum radius from a start location to the tip. A drill section (8) is provided at the tip defined by a pair of flutes (9) formed on the tip and shank, each including a cutting edge (13, 14) and a thread tapping edge where the threaded section begins which is disposed at a different angle than the cutting edge.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holmes as applied to claim 10 above, and further in view of Peck (US 6,065,919). Holmes discloses a self-tapping screw but fails to teach some details of the claims. Peck also discloses a self tapping screw but in Peck: the drive head (10) is shown as hexagonal the entire shank up the tip is disclosed to a constant maximum diameter; the flute (26) is disclosed as extending only to a position intermediate the ends of the thread and finally, the flute begins on the axis of the fastener. At the time the invention was made, it would have been obvious to incorporate the details of the Peak fastener in to the fastener of Holmes in order to improve the Holmes' fastener for improved strength and differing uses.

Claims 7, 8, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holmes or Holmes in view of Peck as applied to claims 1, 6, 10 and 11 above, and further in view of Eager (US 3,747,143). Although Holmes discloses the drill tip to be in the shape of a standard dill, this does not specifically include the conical surface falling off from the cutting edge. Eager disclose a self-drilling screw wherein the conical surface at a drill tip falls off from the cutting edge. At the time the invention was

made, it would have been obvious for one of ordinary skill in the art to form the drill tip of Holmes as disclosed in Eager in order to improve the ability to drill by lessening the surface friction at the tip.

Claims 9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holmes or Holmes as modified by Peck as applied to claims 1 and 10 above, and further in view of Eager and Hanneman (US 3,288,015). As discussed immediately above, Holmes modified by Eager discloses the drill tip falling off from the cutting edge and further disclose angles of  $118^\circ$  at the cutting edge (Fig. 8) and  $90^\circ$  at a trailing edge (Fig. 6). Hanneman discloses a self-tapping screw having a maximum angle of  $110^\circ$ . At the time the invention was made, it would have been obvious for one of ordinary skill in the art to limit the cutting edge angle in modified Holmes to  $110^\circ$  as disclosed in Hanneman for more efficient cutting. Then applying the same amount of modification (there is an  $8^\circ$  difference between  $118^\circ$  and  $110^\circ$ ) to the trailing edge leaves an angle of  $82^\circ$  which is "about"  $83.5^\circ$  as claimed. Alternatively, notice is taken that the  $110^\circ$  and  $83.5^\circ$  are a standard for a drill.

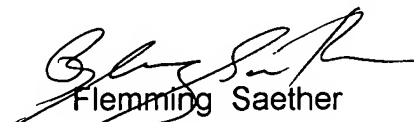
### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Flemming Saether whose telephone number is 703-308-0182. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 703-306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Flemming Saether  
Primary Examiner  
Art Unit 3677